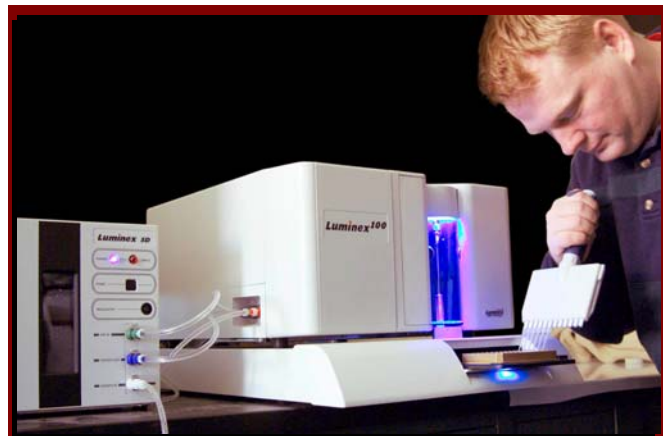


# Rapid Pathogen Detection



## What is this technology?

A suite of methods and reagents for rapid identification of microbial pathogens and other microorganisms, for uses such as: disease diagnosis, epidemiological investigation, outbreak identification, source tracking, pathogen surveillance, or detection of food spoilage species.

## What problem does it address?

Rapid identification and subtyping of:

- *Listeria monocytogenes*, the food-borne bacterial pathogen with the highest human mortality rate and the leading cause of food recalls
- Medically and agriculturally important yeasts, including *Candida albicans*
- Fungal pathogens (*Fusarium graminearum* and related species) of corn, wheat and barley that result in billion dollar losses annually to the global agricultural economy

## Who could use this technology?

- Public health and regulatory agencies (including CDC, FSIS, APHIS and FDA)
- State and local health laboratories
- Hospitals and clinicians
- Food producers and processors
- Research scientists

## How is this technology unique?

This novel technology:

- Is more sensitive, accurate, quicker and easier to perform and standardize than existing methods
- Is more amenable to high-throughput applications
- Produces data that are internet accessible
- Makes interpretation of results and comparisons between users, simple and unambiguous
- Will allow the detection of many more harmful microorganisms than previously possible

Additionally, the scientists on this team have developed the most complete databases of comparative DNA sequence in existence for the targeted pathogen species.

## Licensing Opportunity

This novel technology has potential for broad usage on a world-wide basis and needs an industrial partner for commercial development.

## Stage of Development

- A working prototype has been developed for detecting yeasts; assays have been shown to work in three separate development labs and are ready to be tested in clinical settings.
- Proof of concept has recently been completed for *Listeria* and a prototype is in development.
- Tests for species and toxin identification have been developed for *Fusarium*; these technologies are currently being adapted for high- throughput applications.

## IP Status

A provisional patent has been filed for rapid identification of pathogenic yeast species

## Contact Information

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